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~~48~~ ⁴⁶ 47. A method according to claim ~~45~~ wherein one amino acid residue in the sub-sequence is mutated.

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~~49~~ ⁴⁶ 48. A method according to claim ~~45~~ wherein the sub-sequence is capable of being digested by a serine protease.

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~~50~~ ⁴⁹ 49. A method according to claim ~~48~~ wherein the sub-sequence has an amino acid sequence including the sequence: RAAAG.

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~~51~~ ⁵⁰ 50. A method according to claim ~~49~~ wherein the sub-sequence is mutated by replacing arginine in the sequence: RAAAG with alanine.

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~~52~~ ⁴⁹ 51. A method according to claim ~~48~~ wherein the sub-sequence has an amino acid sequence selected from the group of sequences shown in SEQ ID NOS: 17 to 44.

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~~53~~ ⁵² 52. A method according to claim ~~51~~ wherein the sub-sequence is mutated by replacing arginine in the sequence selected from the group of sequences shown in SEQ ID NOS: 17 to 44 with alanine.

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~~54~~ ⁴⁹ 53. A method according to claim ~~48~~ wherein the sub-sequence is capable of being digested by thrombin and has an amino acid sequence shown in SEQ ID NOS: 8 or 9.

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~~55~~ ⁴⁹ 54. A method according to claim ~~48~~ wherein the sub-sequence is capable of being digested by plasmin and has an amino acid sequence shown in SEQ ID NOS: 11 or 12.

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~~56~~ ⁴⁹ 55. A method according to claim 48 wherein the sub-sequence is capable of being digested by kallikrein.

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~~57~~ ⁵⁶ A method according to claim ~~55~~ wherein the sub-sequence has an amino acid sequence shown in SEQ ID NOS: 9 or 10.

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~~58~~ ⁵⁷ A method according to claim ~~45~~ wherein the sub-sequence is capable of being digested by a metalloproteinase.

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~~59~~ ⁵⁸ A method according to claim ~~57~~ wherein the sub-sequence has an amino acid sequence including the sequence: ALAAA.

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~~60~~ ⁵⁹ A method according to claim ~~58~~ wherein the sub-sequence is mutated by replacing alanine at any position in the sequence: ALAAA with another amino acid residue.

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~~61~~ ⁶⁰ A method according to claim ~~59~~ wherein the sub-sequence is mutated by replacing the alanine which is N-terminal to leucine in the sequence: ALAAA with another amino acid.

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~~62~~ ⁶¹ A method according to claim ~~51~~ wherein the sub-sequence has an amino acid sequence selected from the group of sequences shown in SEQ ID NOS: 45 to 70.

⁶²
~~63~~ ⁶² A method according to claim ~~61~~ wherein the sub-sequence is mutated by replacing alanine at any position in the sequence selected from the group of sequences shown in SEQ ID NOS: 45 to 70 with another amino acid residue.

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~~64~~ ⁶³ A method according to claim ~~62~~ wherein the alanine that is replaced is N-terminal to leucine.

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~~65~~ ⁶⁴ A method according to claim ~~51~~ wherein the sub-sequence is capable of being digested by gelatinase A or B.

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~~66~~ ~~65~~ A method according to claim ~~64~~ wherein the sub-sequence has an amino acid sequence shown in SEQ ID NO: 13.

~~67~~ ~~66~~ A method according to any one of claims ~~45 to 65~~ wherein the tropoelastin is human tropoelastin.

~~68~~ ~~67~~ A method for enhancing the susceptibility of a tropoelastin to proteolysis comprising inserting a sub-sequence into the tropoelastin so that the susceptibility of the tropoelastin to proteolysis is enhanced.

~~69~~ ~~68~~ A method according to claim ~~67~~ wherein one sub-sequence is inserted.

~~70~~ ~~69~~ A method according to claim ~~67~~ wherein the inserted sub-sequence is capable of being digested with a serine protease.

Cmt
B,
~~71~~ ~~70~~ A method according to claim ~~69~~ wherein the inserted sub-sequence has an amino acid sequence including the sequence: RAAAG.

~~72~~ ~~71~~ A method according to claim ~~69~~ wherein the inserted sub-sequence has an amino acid sequence selected from the group of sequences shown in SEQ ID NOS: 17 to 44.

~~73~~ ~~72~~ A method according to claim ~~69~~ wherein the inserted sub-sequence is capable of being digested by thrombin and has an amino acid sequence shown in SEQ ID NOS: 8 or 9.

~~74~~ ~~73~~ A method according to claim ~~69~~ wherein the inserted sub-sequence is capable of being digested by plasmin and has an amino acid sequence shown in SEQ ID NOS: 11 or 12.

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15 ~~74~~ A method according to claim ~~69~~ wherein the inserted sub-sequence is capable of being digested by kallikrein.
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16 ~~75~~ A method according to claim ~~74~~ wherein the inserted sub-sequence has an amino acid sequence shown in SEQ ID NOS: 9 or 10.
- ⁶⁸
17 ~~76~~ A method according to claim ~~67~~ wherein the inserted sub-sequence is capable of being digested by a metalloproteinase.
- ⁷¹
18 ~~71~~ A method according to claim ~~76~~ wherein the inserted sub-sequence has an amino acid sequence including the sequence: ALAAA.
- ⁷¹
19 ~~78~~ A method according to claim ~~76~~ wherein the inserted sub-sequence has an amino acid sequence selected from the group of sequences shown in SEQ ID NOS: 45 to 70.
cn²
B
- ⁷¹
20 ~~79~~ A method according to claim ~~76~~ wherein the inserted sub-sequence is capable of being digested by gelatinase A or B.
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21 ~~80~~ A method according to claim ~~79~~ wherein the inserted sub-sequence has the amino acid sequence shown in SEQ ID NO: 13.
- ⁶⁸ ⁸¹
22 ~~81~~ A method according to any one of claims ~~67~~ to ~~80~~ wherein the tropoelastin is human tropoelastin.
- ⁸³ ⁸²
23 ~~82~~ A peptidomimetic molecule comprising all or part of a peptide selected from the group consisting of KAPGVGGAF, RAAAGLG, RSLSPELREGD, KAAQFGLVPGV, KSAAKVAAKAQLRAA, RSLSPELRE AND LAAAKAAKYGAA.

84 83. A peptidomimetic molecule which has the sequence: H-Ala-Ala-Lys-Ala-Gln-Leu-Arg-Ala-Ala-Ala-Gly-Leu-Gly-Ala-OH or H-Ala-Ala-Lys-Ala-Gln-Leu-Arg-R-Ala-Ala-Ala-Gly-Leu-Gly-Ala-OH (where R = a reduced peptide bond).

85 84. A peptidomimetic molecule which is a retro-inverso pseudo peptide which has the sequence: H-D-Ala-Gly-D-Leu-Gly-D-Ala-D-Ala-(R)-D-Arg-D-Leu-D-Gln-D-Ala-D-Lys-D-Ala-D-Ala-OH (where R = a reduced peptide bond) or H-D-Ala-Gly-D-Leu-Gly-D-Ala-D-Ala-D-Ala-D-Arg-D-Leu-D-Gln-D-Ala-D-Lys-D-Ala-D-Ala-OH.

86 85. A peptidomimetic molecule which has the sequence H-Val-Pro-Gly-Ala-Leu-Ala-Ala-Ala-OH or H-Val-Pro-Gly-Ala-(R)-Leu-Ala-Ala-Ala-OH (where R = a reduced peptide bond).

87 86. A peptidomimetic molecule which is a retro-inverso pseudo peptide which has the sequence: H-D-Ala-D-Ala-D-Ala-D-Leu-(R)-D-Ala-Gly-D-Pro-D-Val-OH (where R = a reduced peptide bond) or H-D-Ala-D-Ala-D-Ala-D-Leu-D-Ala-Gly-D-Pro-D-Val-OH.

88 87. A method for enhancing the purification of a tropoelastin comprising including a peptidomimetic molecule according to any one of claims 82 to 86 in a crude tropoelastin preparation which is being subjected to purification.

89 88. A pharmaceutical composition comprising a peptidomimetic molecule according to any one of claims 82 to 86 and a pharmaceutically acceptable carrier.